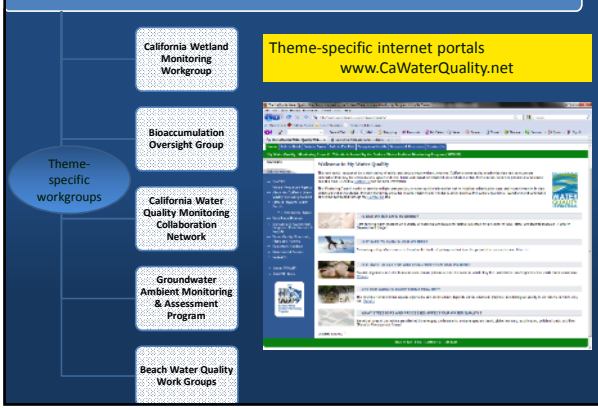
WRAMP Overview and CRAM Technical Bulletin

Evolving State Program

- California Water Quality Monitoring Council
  - Established by Ca. Legislature in 2006 (SB 1070)
  - Co-chaired by Natural Resources and CalEPA
- Two Major Goals:
  - Improve coordination of water quality monitoring programs in California (10 yr. workplan)
  - Make information more accessible to agencies and the public (web portals)

California Water Quality Monitoring Council

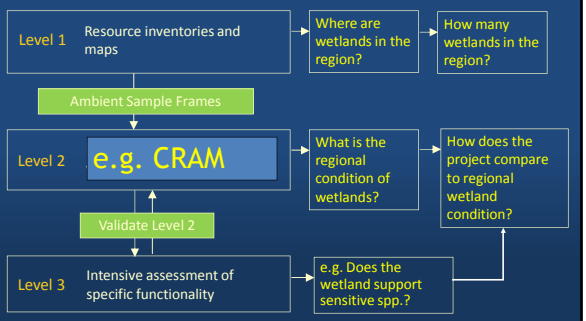


California Wetland Monitoring Workgroup (CWMW)

- Subcommittee of California Water Quality Monitoring Council
- State and Federal co-chairs + SB1070 liason
- Participating agencies:
  - 12 State, 5 Federal, 5 Academic/Research

Goal = development, coordination, and implementation of wetland monitoring across California

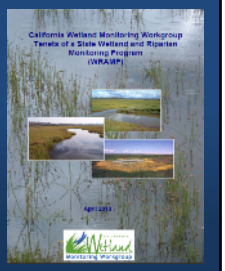
Three-tiered Monitoring Framework



California Wetland Monitoring Workgroup

Wetland and Riparian Monitoring Program (WRAMP)

- Question driven
  - Flexible: support individual agency's info needs
  - Support, not subsume agency programs
- Consistent Statewide Framework
  - Common tools and data management
  - Focus on Levels 1 and 2 & data management
- Regional Implementation
  - Build on existing programs
  - Customize to meet regional/local needs
- Management of Statewide Products
  - Level 1 (mapping)
  - Level 2 (CRAM + other RAMs)
- Ongoing Technical Support and Coordination
  - CWMW provides statewide coordination
  - Most "work" occurs through regional teams



WRAMP Implementation

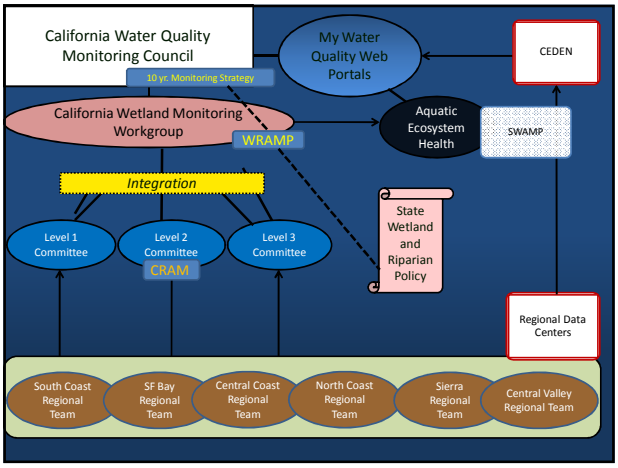
- Emerging opportunities to implement WRAMP through a variety of large-scale land use projects:
  - *Solar energy transmission corridor alternatives analysis and impact assessment*
  - *California High-Speed Rail*
  - *Central Valley Flood Protection Plan (CVFPP)*
  - *Delta Conveyance Alternatives*
  - *Willits Bypass*
- Provide opportunity to institutionalize WRAMP and coordinate water quality assessment and monitoring within large agencies representing larger portion of State

Wetland and Riparian Area Protection Policy (WRAPP)

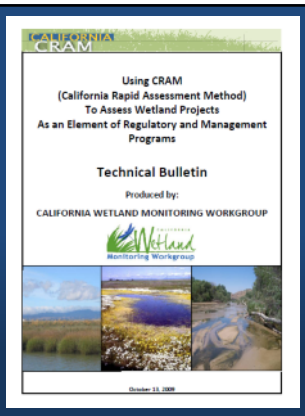
- Policy development via SWRCB
- Goals :
  - develop a consistent statewide wetland policy
  - provide common framework for wetland and riparian area monitoring and assessment

Wetland and Riparian Area Protection Policy (WRAPP)

- **Phase 1:**
  - Wetland definition
  - Wetland area delineation
  - Regulations for permitting dredged and fill material
  - Regulations for wetland monitoring and assessment framework
- **Phase 2:**
  - Wetland beneficial use definitions
  - Water quality objectives
  - Implementation program
- **Phase 3:**
  - Protection of riparian area water quality related functions
  - Beneficial use definitions, water quality objectives
  - Implementation program



CRAM Technical Bulletin and QA/QC Plan



Available at: www.waterboards.ca.gov/mywaterquality/monitoring_council/wetland_workgroup
www.cramwetlands.org

Selected Components of CRAM Technical Bulletin

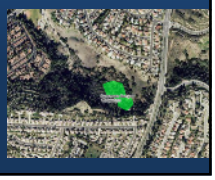
- Appropriate and inappropriate uses
- Modification of the Method
- Requirements for Practitioners
- Submission of CRAM scores
- How to interpret a CRAM score
- Quality assurance measures

Appropriate Uses of CRAM: Ambient Assessment and Monitoring

- Ambient assessment of wetland condition
- Monitoring of ecological reserves, mitigation banks, wildlife refuges, etc.

Appropriate Uses of CRAM: Project Assessment

- Pre-project conditions at impact, mitigation, or restoration sites
- Unauthorized (enforcement) actions
- Project performance/success, Compliance with mitigation targets
- Comparison of proposed alternatives for restoration planning



Inappropriate Uses of CRAM

- Jurisdictional determinations
- Focused/endangered/threatened spp. monitoring
- Substitute for Level 3 monitoring
- Compliance with water quality objectives
- Assessment of wetland mechanisms/processes
- Assessment of wetland values
- "Designing projects to the metric"

Agencies Retain Discretion on Specific Applications

Modification of the Method

- All Attributes should be assessed and reported when conducting assessments
- Under no circumstances should a module be modified
- Additional L2 or L3 assessments may be used to augment CRAM, but should never be hybridized with the method

Requirements for Practitioners

- CRAM is relatively rapid but it is not necessarily easy to apply
- Complete at least one 3-day CRAM training course
- Teams of at least two trained practitioners, preferably with complementary expertise
- Trained practitioners will be notified via email of CRAM updates to maintain familiarity with new versions

Submission of CRAM Scores

- Once completed, a CRAM assessment should be submitted online via cramwetlands.org, it should include:
  - Fully completed CRAM data sheet
  - Completed stressor checklist
  - Map of the AA
  - Timing of the assessment
  - Names of all assessors

Interpretation of CRAM Scores

- Scores based on internal reference standard
  - Best achievable condition statewide
  - Scores range from 25-100
- Ability to compare CRAM scores
  - Project-Ambient
  - Project-Project
  - Projects-Reference
- Detecting changes in wetland condition over time

Programmatic Interpretation of CRAM Scores

- Programs provide meaning to CRAM Scores
  - CWA 305(b) "status and trends"
  - CWA 404: "functional lift"
  - 401/WDR: "performance standards"
  - Ca Conservation Policy "no-net-loss in quality"

CRAM Quality Assurance

- Minimal requirements for all submitted CRAM assessments
- Regional Audit teams will assist with QA, training, and difficult wetlands
  - Independent review of a small percentage of all CRAM assessments

CRAM QA/QC Plan

(in development)

- Minimum reporting requirements
- Audit process
- Training
- Intercalibration